CAMBRIDGE ADVANCED NATIONALS

OCR
Oxford Cambridge and RSA

Sample assessment material

LEVEL 3 ALTERNATIVE ACADEMIC QUALIFICATION
CAMBRIDGE ADVANCED NATIONAL IN

HEALTH AND SOCIAL CARE

Extended Certificate H125

For first teaching in 2025

F091: Anatomy and physiology for health and social care

Version 1.0 (June 2024)

Introduction

This is Sample Assessment Material (SAM) which has been produced for the OCR Level 3 Alternative Academic Qualification Cambridge Advanced National in Health and Social Care (Extended Certificate).

The SAM is an example exam paper that we publish alongside a new specification to help illustrate its intended style and structure when a qualification is first launched. We wanted to share the story of our assessment approach with you so when you look through the paper you will find we have pointed out certain features and explained the decisions we have made.

Resources to help support in teaching different areas of content can be found on the Cambridge Advanced National Health and Social Care webpage under 'Planning and teaching'.

Our exam papers are developed with accessibility in mind. The Understanding the assessment guide tells you a little more about the principles and rationale underpinning our approach for the qualifications. The 'Command Words' are in both the Understanding the Assessment guide and the specification. These tell you what we mean by each command word and how students should approach the question and understand its demand.

Appendix B of the specification: Command Words, gives detail about what is expected of each command word that will be included in exams and mark schemes. You can include teaching around the expectations of these as part of your teaching.

You said, we did

During the development of this qualification, we talked extensively with teachers, subject experts, higher education institutions and our senior assessment teams to influence the structure, content and assessment materials. We then shared our final materials with teachers to make sure that they met their needs.

You told us to keep the exam as short as possible but retain time to allow students to read the scenario and respond to questions which require an extended answer. You told us that the current Anatomy and physiology exam is too long. In the new Level 3 Alternative Academic Qualification Cambridge Advanced National in Health and social care (Extended Certificate) the exam is 1 hour 30 mins (rather than 2 hours) and is worth 60 marks rather than 100.

You told us that scenarios used within external assessment should be accessible and easy for students to understand. We have done this by using scenarios which students will have encountered, either through the teaching content or in real life situations.

Examples of your comments are placed against the relevant sections/questions.

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All students will sit the exam at the same time on the same day.

The time allowed is designed to give students approximately one minute per mark plus reading time.

If students require additional answer space, lined paper may be available at the end of the answer booklet in a live question paper. Remember the question number(s) must be clearly shown.

OCR
Oxford Cambridge and RSA

<<Date>> – <<Morning/Afternoon>>

Level 3 Alternative Academic Qualification Cambridge Advanced National in Health and Social Care

H125 Unit F091: Anatomy and physiology for health and social care

This exam will always be set and marked by us. Exams will be available in January and June each year.

Sample Assessment Material (SAM)

Time allowed: 1 hour 30 minutes

XXX/XXXX

No extra materials are needed.

Please write clearly in black ink. **Do not write in the barcodes.**

Centre number | Candidate number

First name(s)

Last name

Date of birth

INSTRUCTIONS

- Use black ink.
- Write your answer to each question in the space provided. You can use extra paper if you need to, but you must clearly show your candidate number, the centre number and the question numbers.
- In the live exam there might be lined pages at the end of the question paper for you to use if you need extra space. Remember, you must clearly show the question numbers.
- Answer **all** the questions.

Each exam will ask at least one question from each Topic Area in the unit. Sub-content topic areas will be sampled across exam papers, over time. Questions will not necessarily be in the same order as the teaching content.

INFORMATION

- The total mark for this paper is **60**.
- The marks for each question are shown in brackets **[ ]**.
- This document consists of **16** pages.

The exam will always have 60 marks.

ADVICE

- Read each question carefully before you start your answer.

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Turn over

Section A will always contain 10 one-mark questions. These will be a mix of multiple choice and short answer questions.

A range of Topic Areas will be covered in Section A and will often assess Performance Objective PO1 – Show knowledge and understanding.

Section A

1 State **one** function of white blood cells.

.....**[1]**

2 What type of test is used to monitor the cardiac cycle?

.....**[1]**

3 Where in the respiratory system does gaseous exchange happen?
Tick (✓) **one** box.

Alveoli ☐

Bronchi ☐

Bronchioles ☐

Pleural fluid ☐

[1]

The number of marks for a question will always be given at the end of the question and will always be right aligned.

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4 Which part of a neurone releases neurotransmitters during nerve action?
Tick (✓) **one** box.

- Axon ☐
- Myelin Sheath ☐
- Node of Ranvier ☐
- Synaptic knob ☐

[1]

5 What are carbohydrates broken down into during chemical digestion?
Tick (✓) **one** box.

- Amino acids ☐
- Fatty acids ☐
- Glucose ☐
- Glycerol ☐

[1]

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6 State **one** main sign or symptom of gallstones.

.....**[1]**

7 Which hormone is released by the pancreas to lower blood glucose levels?

.....**[1]**

8 State **one** factor that makes it more likely someone will have an ischaemic stroke.

.....**[1]**

9 Where in the female reproductive system does a foetus gestate?

.....**[1]**

10 Carpal tunnel syndrome can be diagnosed using physical examination or an ultrasound scan.

State **one** other way to diagnose carpal tunnel syndrome.

.....**[1]**

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Each question will cover a specific Topic Area.

This is an example of a 'complete the sentence' question.

The layout of these will always be similar but some may provide a list of words to choose from.

6

Section B

11 (a) Complete the sentences below to describe what happens in inspiration when breathing.

In inspiration, the external intercostal muscles …… This pulls the …… upwards. At the same time the …… contracts and moves downwards.

This increases the volume in the chest cavity, which decreases the pressure. Air then …… the lungs to equalise the pressure.

[4]

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Section B will always contain 4 structured questions.

Four of the six Topic Areas will be covered.
Question types include:

- Forced choice/controlled response questions
- Short answer, closed response questions
- Extended response questions with either points-based marks schemes or levels of response marks schemes

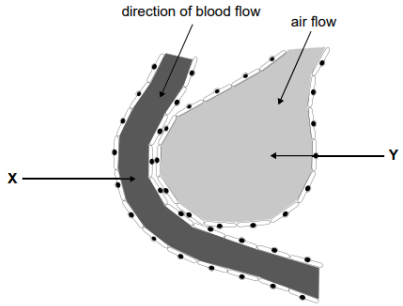
These allow us to assess the following Performance Objectives:

- PO1 – Show knowledge and understanding
- PO2 – Apply knowledge and understanding
- PO3 – Analyse and evaluate knowledge, understanding and performance.

Students may be asked to label and/or use diagrams. Here is an example. We have indicated in the breadth and depth column in the unit where content might be assessed in this way.

7

(b) The diagram shows a capillary and an alveolus.



Explain how gases are exchanged between X and Y as the blood flows in the capillary.

.....

.....

.....

.....

.....

[3]

This is an example of a complete the sentence where no answer options are provided.

(c) Complete the sentence below about cellular respiration.

..... + ... → **carbon dioxide + water + energy released as ATP molecules**

[2]

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Turn over

8

(d) Nina has brought her 6-month-old baby to hospital with a cough, breathing difficulties and a fever.

(i) Which respiratory condition is most likely to be affecting Nina's baby?

Respiratory condition .....**[1]**

(ii) Explain why you think this condition is most likely.

.....

.....

.....

.....

[2]

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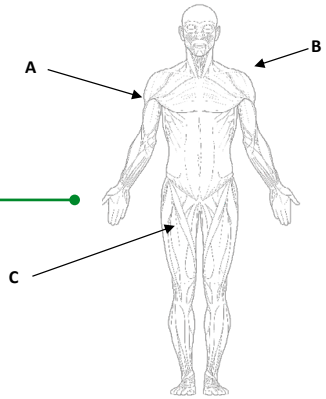
Students may also be asked to complete a table or diagram. Here is an example.

As with 'complete the sentence' questions, sometimes a list of options to choose from may be given. Other times, students will need to provide their own answers, as in this case.

12

(a) Identify the muscles in the diagram below



Letter	Muscle
A	
B	
C	

[3]

(b) Describe synovial fluid and its role in the movement of a synovial joint.

.....

.....

.....

.....

.....

[3]

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Appendix B in the specification contains a glossary of Command Words which will be used in our exams. The glossary tells you what we mean by each command word.

10

(c) Analyse how osteoarthritis affects the musculoskeletal system.

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.....

.....

[6]

The exam will have at least one level of response (LOR) question worth six marks that needs an extended written response. This question will assess PO3 - Analyse and evaluate knowledge, understanding and performance. The question topic may be drawn from any relevant aspect of the unit teaching content.

Extended response questions give students a real opportunity to show examiners how they can apply what they have learned about the subject.

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Where questions have a context such as this one, it is important that students apply their answers to the context – in this case, about why the recommended treatment might be the most suitable one for Eve given what they are told about her.

(d) Eve is 93 years old. She has recently been diagnosed with osteoarthritis in her hip joint. The doctor has recommended she is treated with pain medication and uses joint support devices.

Explain why the doctor would recommend pain medication and joint support devices for Eve at this stage, rather than a hip replacement operation.

.....

.....

.....

.....

.....

[3]

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13

(a) Outline the luteal phase of the menstrual cycle.

.....

.....

.....

.....

.....

[3]

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A 'Discuss' question such as this will always be an extended response question marked with a levels of response mark scheme.

This means that it is not necessarily 'one tick = one mark'; the response is judged more holistically based on how well all aspects of the question are addressed in terms of both breadth and depth.

(b) Sundip is 19 years old and has been diagnosed with endometriosis.

She gets severe period pains and very heavy periods which mean she finds it difficult to go to work or out with her friends when she is having her period.

The doctor has already prescribed pain relief and hormonal contraceptives, but these have not worked.

The doctor has now suggested **two** possible treatments for Sundip:

- laparoscopic removal of the endometriosis tissue
- hysterectomy.

Discuss which treatment would be best for Sundip.

In your answer you must write about:

- any benefits of each treatment for Sundip
- any limitations of each treatment for Sundip
- which treatment you would recommend for Sundip **and** your reasons. **[9]**

The exam will have at least one level of response (LOR) question worth nine marks that needs an extended written response. This question will assess PO3 - Analyse and evaluate knowledge, understanding and performance. The question topic may be drawn from any relevant aspect of the unit teaching content.

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14 Jack is a 65-year-old male. He is a heavy smoker and is overweight.

He is going on holiday in six months' time. He will travel there on an aeroplane and the flight is 8 hours long.

Jack is worried as he has previously had deep vein thrombosis (DVT) and knows that taking a long flight will increase his risk of developing it again.

(a) State **one** symptom of deep vein thrombosis.

..... **[1]**

(b) Explain the health risks of having a deep vein thrombosis.

.....

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[4]

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This question assesses PO2 (apply knowledge and understanding) student responses **must** be applied to the scenario, so we reference the scenario (in this case Jack) in the question.

15

(c) Explain how Jack could reduce the risk of developing deep vein thrombosis.

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.....

.....

[6]

END OF QUESTION PAPER

This indicates to students there are no more questions to answer.

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